

The following chapters describe the specific kinds of knowledge, techniques, and skills that coaches need to achieve the goals described in this chapter. At this point we recommend that you examine the example of an actual coaching conference in Appendix A. As you proceed through the subsequent chapters, you may want to return to these interactions to see how the principles of Cognitive Coaching are applied.

NOTES

1. Lipton, L., and Garmston, R. (1997). *The Planning Conversation*. Cognitive Coaching Seminar Series *The Journey to Mastery*. Video and Manual. Highlands Ranch CO: Center for Cognitive Coaching. www.cognitivecoaching.cc
2. For an extensive discussion of the need for and value of reflection, see: York-Barr, J., Sommers, W., Ghere, G., and Montie, J. (2001). *Reflective Practice to Improve Schools: An Action Guide for Educators*. Thousand Oaks, CA: Corwin Press. Sanford, C. (1995). *Feedback and Self Accountability: A Collision Course*. Battleground, WA: Springhill.
3. Costa, A., and Wellman, B. (2002). *The Reflecting Conversation*. Cognitive Coaching Seminar Series *The Journey to Mastery*. Video and Manual. Highlands Ranch, CO: Center for Cognitive Coaching. www.cognitivecoaching.cc
4. Lipton and Garmston, *The Planning Conversation*; Costa, and Wellman, *The Reflecting Conversation*.
5. This videotape is available from the Association for Supervision and Curriculum Development, 1703 N. Beauregard St., Alexandria, VA 22311-1714; (703) 933-ASCD; www.ascd.org.
6. This videotape is available from TeachStream, Inc., 8686 S. 1300 E. Sandy, UT 84094; (877) 350-6500; fax (888) 566-6888. www.schoolimprovement.net

3

Coaching as Mediation

The self is not a thing, but a point of view that unifies the flow of experience into a coherent narrative—a narrative striving to connect with other narratives and become richer.

—Jerome Bruner

The ultimate goal of Cognitive Coaching is self-directed learning, which means to self-manage, self-monitor, and self-modify. With Cognitive Coaching, the mediator helps to engage and enhance a colleague's cognitive and emotional capacities to develop self-directed learning. Ultimately, mediators work to modify another person's capacity to become self-coaching.

THE PROCESSES AND ROLE OF MEDIATION

The word *mediate* is derived from the word *middle*. Therefore, mediators interpose themselves between a person and some event, problem, conflict, challenge, or other perplexing situation. The mediator intervenes in such a way as to enhance another person's self-directed learning.

Human learning is a matter of strengthening internal knowledge structures. Planning for and reflecting on experience activates these knowledge structures. With mediation, existing knowledge structures can be made more complex through more connections. The structures can also be altered to accommodate new understandings, or they can be made obsolete because some new experience has caused the creation of a new knowledge structure. This sifting and winnowing of prior knowledge structures constitutes learning. (See Appendix C for a more detailed description of constructivism and its relationship to coaching.)

Reuven Feuerstein states the following in "Mediated Learning Experience":

Mediated learning is an experience that the learner has that entails not just seeing something, not just doing something, not just understanding something, but also experiencing that thing at deeper levels of cognitive, emotional, attitudinal, energetic, and affective impact through the interposition of the mediator between the learner and the experienced object or event (stimuli). In such a context, learning becomes a deeply structured and often a pervasive and generalizable change.¹

Figure 3-1 illustrates how the mediator may intervene at two points: between a person and a task and between a person and meaning.

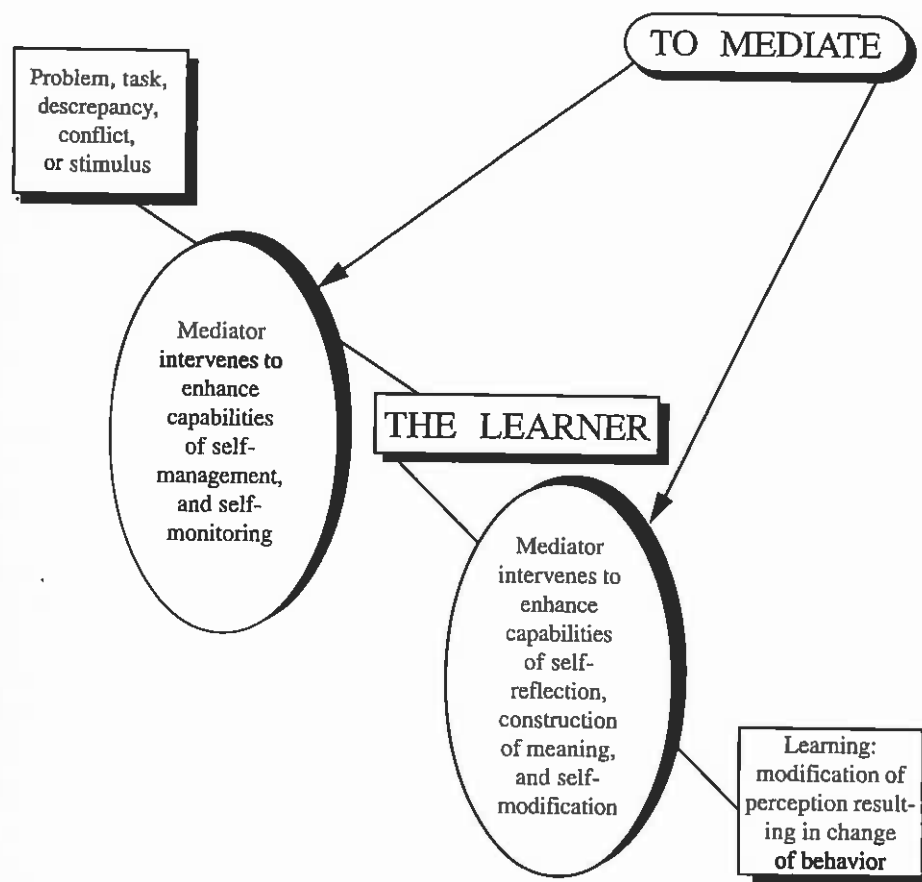


Figure 3-1.
A Mediator Intervenes

Intervening Between a Person and a Task

When a person encounters some task, problem, or obstacle that involves planning, the mediator intervenes by helping to think through a strategic, deliberate approach. This means establishing clear goals and planning to gather as much data as possible. Mediating in this case also means drawing out past successes with similar problems and considering alternate strategies. What will the end product be like? How can the colleague monitor steps in the strategy and collect indicators of success along the way? The question "What will be your indicators of success?" is a simple expression of this form of mediation.

Intervening Between a Person and Meaning

This type of mediation involves helping the other person to reflect on the experience to maximize meaning-making. Meaning is made by analyzing feelings and data, comparing results with expectations, finding causal factors, and projecting ahead to how the meaning may apply to future situations. "How else might you explain that?" illustrates an intervention at this level.

THE MEDIATOR'S ROLE

Mediators influence the intensity, flow, directionality, importance, excitement, and impact of information coming to the person being coached. According to Feuerstein, the mediated learning experience transforms the information that impinges on a learner and enters his repertoire in a totally different way. Rather than give advice to or solve problems for another person, a mediator helps the colleague to analyze a problem and develop her own problem-solving strategies. A mediator helps a colleague to set up strategies for self-monitoring during the problem-solving process. Acting as a sounding board, a skilled mediator helps another person to become more self-directed with learning. A mediator also:

- is alert to the mediational moment—usually when a colleague is faced with a complex task, dilemma, discrepancy, or conflict. Often, the colleague exhibits tension and anxiety, the resolution of which is not immediately apparent.
- facilitates mental processes for others as they solve their own problems, make their own decisions, and generate their own creative capacities.
- invites the colleague to reflect on and learn from the problem-solving process to find applications in future problem situations.
- helps others to become continuous learners.
- maintains faith in the human capacity for continued intellectual, social, and emotional growth.
- possesses a belief in his or her own capacity to serve as an empowering catalyst for others' growth.

HOW MEDIATION AFFECTS THE BRAIN

[The] talking cure can physically change the brain and . . . anytime you have a change in behavior you have a change in the brain.

—Lewis Baxter

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Feuerstein believes that mediation produces new connections in the brain. He states:

One of the most interesting and exciting aspects of mediated learning . . . is that the quality of interaction not only changes the structure of behavior of the individual, not only changes the amount and quality of his repertoire, but—according to increasingly powerful sources of evidence from fields of neurophysiology and biochemistry—changes the structure and functioning of the brain itself in very meaningful ways.

This idea finds support from many quarters. Neuroscientist Gerald Edelman proposes that the brain reconstructs itself from experience. One commonly understood example of this is the neural pruning that occurs within the first two years of life, cauterizing neural capacities for distinguishing sounds outside one's own language group.² Ornstein claims, "To make a personal change, we have to be able to observe the automatic workings inside ourselves."³ This requires the kind of consciousness evoked by mediation. He describes the brain as having a neural selection system that wires up the nervous system differently, depending on the demands on the organism. Managing and developing the mind is to bring automatic processes into consciousness.

THREE RESOURCES OF MEDIATION

Three resources are constantly monitored and sustained in the mediation process: reciprocity, clear intentions, and vision.

Reciprocity refers to how skillful mediators maintain mutually cooperative, trusting relationships. The mediator holds and dem-

60 onstrates the utmost respect for the individual's feelings, ideas, and perspectives.

When assuming the identity of a mediator, one must also be very clear about intentions. Mediators monitor their own values and realize that although it might be tempting to solve a problem, evaluate, or give advice, they must hold those thoughts in abeyance in order to allow the other person to resolve the situation. Mediators are not "fixers." Instead, they have faith that others can solve their own problems. Trying to "fix" others detracts from a trusting relationship.

The mediator and the individual also need a clear vision of a more desirable state for the individual. For example:

- If the person is experiencing a feeling of helplessness, the vision would be to help him achieve a feeling of efficacy.
- If the person were struggling with vagueness or a lack of clarity, the vision would be for her to become clear about goals, outcomes, strategies, or definitions.
- If the person is unaware of his actions and values and their effects on others, the vision would be to build greater self-awareness.
- If the person is holding on to a rigid stance or narrow perspective, the vision could be for her to think more flexibly or more broadly.
- If the person is experiencing a feeling of isolation, the vision would be for him to develop interdependent relationships, connectedness, and a sense of affiliation and belonging.

WHY MEDIATION WORKS

Knowledge is a rediscovery of our own insights.

—Plato

61 Four theorems guide the Cognitive Coach's beliefs and actions and explain why mediation works:

1. The sum of an individual's constructed meanings resides internally at conscious and unconscious levels and serves as the criterion for perceptions, decisions, and behavior.
2. When these meanings are given form in language, they become accessible to both parties in a verbal transaction.
3. Through verbal transaction (mediation), these meanings and the perceptions, decisions, and behaviors related to them can be refined, enriched, and modified.
4. Through Cognitive Coaching, not only are an individual's meanings, decisions, and behaviors refined and modified, with related results in improved performance, but also refined is the individual's capacity to self-mediate and to become more proactive in continuing self-directedness.⁴

WHO CAN BE A MEDIATOR?

Anyone can assume the role of mediator for another's self-directed learning. Thus, mediation can occur between two students, two teachers, two administrators, a leader and a group member, or a teacher and a student.

When a coaching relationship is established between two professionals with similar roles, or peers, it may be referred to as peer coaching. Cognitive Coaching has a more specific meaning; it refers to the identity that mediators assume, the coaching maps and tools with which they work, the desire for enhancing other's self-directedness that they embrace, and the faith in the human capacity for meaning-making that they cherish. Peer coaching describes with whom you coach; Cognitive Coaching defines how you coach.

In an increasing number of educational communities, custodians, school secretaries, bus drivers, parents, students, and cafeteria workers are learning the skills of Cognitive Coaching. In one Michigan school district, the director of maintenance coaches an elementary principal, who in turn coaches a teacher. In a Califor-

nia school district, a superintendent receives monthly coaching from a mentor teacher. In an international school in Malaysia, the head of schools is coached by a special education teacher.

THE MEDIATIONAL MOMENT

We all have many opportunities to engage others in problem solving. The challenge, however, is in deciding among these three questions:

- Can I, do I wish to, and should I provide someone with solutions?
- Can I, do I wish to, and should I collaborate and assist others with ideas or information?
- Can I, do I wish to, and should I assist others in learning how to solve their problems themselves?

For example, if a teacher has a problem with a leak in the classroom ceiling, then the principal should arrange for the appropriate maintenance personnel to take care of the problem. If the teacher's challenge has to do with implementing a new teaching strategy, determining a more effective behavior management technique, devising an innovative way to deal with student diversity, or optimizing the use of a new technological tool, mediation would be a better way to help the teacher generate ideas for planning, implementing, and resolving the challenge.

Many people are not accustomed to seeing themselves as mediators. They may try to solve others' problems instead of facilitating the problem-solving process. They may give advice instead of helping others to self-prescribe. They may evaluate rather than help a person to self-evaluate.

There are advantages and disadvantages to performing as an advisor for others. Some advantages are the following:

- The problem will be solved (or appear to be solved) swiftly and efficiently.
- The solution will be congruent with your beliefs and values.

- You may feel satisfaction for having been of help.
- Others may perceive you as an effective leader.
- You will learn more about the process of problem solving.

There are also some disadvantages to acting as an advisor:

- The problem you have "solved" may be a surface manifestation of deeper issues that have not been resolved.
- The other person may become dependent on you to solve future problems or blame you if a satisfactory resolution is not achieved.
- The other person will have learned little about problem-solving processes.
- The other person may not take your suggestions for solving the problem.
- The other person may build resentment because he views himself as inadequate and helpless.
- You will miss the opportunity for developing another's capacities for self-directedness.

CAPABILITIES OF A MEDIATOR

The settings in which Cognitive Coaching may occur range from informal, spontaneous conversations to more formal, planned conferences. Sometimes opportunities for mediation present themselves spontaneously and informally in day-to-day life, such as during a conversation in the faculty room or in the hall on the way to class. More formal, planned events are also opportunities for mediation, such as a formal classroom observation of teaching and learning or a scheduled department or faculty meeting.

A coach seizes all these opportunities to use specific mediational skills to engage and develop the other person's thinking processes. Mediators need certain skills, attitudes, and capabilities to perform their role well. For example, a mediator uses language with the intent of causing a change in the other person's reality. These

linguistic tools include the following: posing questions intended to engage and transform the mind, creating conditions of trust, envisioning a desired state of mind, remaining nonjudgmental, and resisting the tendency to solve the problem for the learner. (A description of these specific tools can be found in chapter 4.) Following are descriptions of four specific capabilities, or metacognitive attributes, of a mediator.

Knowing One's Own Intentions and Choosing Congruent Behaviors

Behaviors can be either reactive or proactive. Proactive behaviors are based on intention or goal awareness. The ultimate goal of mediation is to help an individual become self-mediating. With that end in mind, mediators are clear about their intentions in the moment. Perhaps they want to reflect understanding, clarify a communication, help the colleague to feel comfort, or cause self-examination. Choosing behaviors that support intentions like these requires the following:

- Being conscious of one's intention in the moment and how that intention serves a greater goal
- Being alert to a colleague's verbal and nonverbal cues
- Having a repertoire of mediational tools
- Knowing how a particular tool may serve a specific intention
- Being able to use that tool with a great degree of craftsmanship
- Anticipating and searching for the effects a tool produces in a colleague

Setting Aside Unproductive Patterns of Listening, Responding, and Inquiring

In trying to really listen, I have often been inspired by the Zen Master Suzuki-roshi, who said: "If your mind is empty, it is always ready for anything; it is open to everything. In the beginner's mind there are many possibilities."

—Sogyal Rinpoche

Mediators monitor and manage their own listening skills by devoting their mental energies to the other person's verbal and non-verbal communications. To listen with such intensity requires holding in abeyance certain normal, tempting, but unproductive behaviors, which may interfere with the ability to hear and understand a colleague.

For example, *autobiographical listening* occurs when the brain exercises its associative powers and the colleague's story stimulates the coach to think of her own experiences. (If a colleague mentions recent automobile repairs, that reminds you of your car's most recent breakdown.) Coaches set this type of listening aside as soon as they become aware that their attention has drifted into their own story. Besides being distracting, autobiographical listening may stimulate judgment in which negative or positive experiences prejudice listening. Autobiographical listening may also stimulate comparison, in which the coach is further distracted by comparing the situations. Finally, autobiographical listening may spark immersion, in which we are lost in attentiveness to our own story.

Inquisitive listening occurs when we begin to get curious about portions of the story that are not relevant to the problem at hand. Knowing what information is important is one critical distinction between consulting and coaching. As a consultant, a person needs lots of information in order to "solve the problem." As a coach, a person needs only to understand the colleague's perspective, feelings, and goals and how to pose questions that support self-directed learning.

Mind reading is sometimes a byproduct of inquisitive listening. With mind reading, we try to figure out what someone is really thinking and feeling. Mind reading does not allow us to pay sufficient attention to what a partner is saying. Scrutinizing is also a by-product of inquisitive listening. With scrutinizing, curiosity about that which is not relevant to the mediational moment sinks the conversation into a hole of analytical minutiae that may cause a coach and colleague to lose sight of the larger issue.

Solution listening is what we have a tendency to do when we serve as a problem solver for another. Because we may view ourselves as

great problem solvers, ready with help and eager to give suggestions, we immediately begin searching for the right solution to a problem. When coaching, however, thinking of solution approaches as your colleague speaks interferes with understanding the situation from the colleague's perspective. It also interferes with formulating mediational moves.

Filtering is often a by-product of solution listening in which we listen to some things and not to others, paying attention only to those ideas that support the solution approach we are developing. This is a common problem for physicians, who must work hard to stay open to possibilities during the early stages of diagnostic visits with a patient. Rehearsing, too, can be a by-product of solution listening, as our attention gets focused on preparing and crafting the way that we are going to present a solution.

Adjusting One's Own Style Preferences

Mediators understand a fundamental and common principle: humans differ. Distinct patterns of perceiving and processing information are neither good nor bad. They transcend race and culture, characterize males and females equally, and are observable at all age levels.

Conscious of these differences, Cognitive Coaches strive to be flexible communicators. They recognize their own style preferences and seek to overcome these habits when interacting with someone who operates from a different style.

Setting aside their own style preferences, coaches observe, respect, appreciate, are open, inquire, let go of judgment, are authentic, are collaborative, are caring, and are compassionate.⁵ To achieve this, coaches constantly sense, search for, and detect cues about the person with whom they are working. They constantly expand their repertoire so they can match their style to a variety of situations and individuals. Style flexibility is elaborated in chapter 12.

Navigating Through the Coaching Maps and Support Functions

Three basic coaching maps provide the coach with information about the mental territories of planning, reflecting, and problem

resolving. Similar to a road map, mental maps provide the coach with directions to destinations as well as options for alternate routes. Humans reference many maps to guide their interactions in different settings. Problem-solving steps, brainstorming rules, algorithms, and other procedural knowledge that adults accumulate are all forms of mental maps. We consciously use some of these daily; other maps, with practice and habituation, are used unconsciously. Bloom's Taxonomy and Marzano's Taxonomy⁶ are examples of mental maps that teachers hold in their heads as guides for questioning, sequencing a lesson, and composing test items.

Coaches make decisions within coaching maps (such as the sequence with which items in the planning map are discussed). Coaches also make decisions across coaching maps; that is, they are alert to a moment during a reflecting conversation when it might be appropriate to switch to a problem-solving map to guide an interaction. Coaches also decide when to coach, when to collaborate and when to consult.

SEARCHING FOR OUR IDENTITY AS MEDIATORS

The circumstances in life, the events in life, the people around me in life do not make me the person I am, but reveal the way I am.

—Jim St. John

Throughout our lifetimes we play out a variety of roles. We are parent or child, husband or wife, brother or sister, friend or student, boss or employee. The archetype of each of these roles carries certain presuppositions, orientations, and goals, which are manifested verbally and with our entire being. Communicating from any one these orientations casts us into a response loop with others. For example, if I sound, feel, and look like a parent to you, you are likely to respond to me as a child.⁷

Assuming the stance of the expert establishes one's responsibility to share one's greater knowledge and experience and to help others develop correct and appropriate performance. The friend val-

ues the relationship and will be loath to jeopardize it. The boss, in the traditional sense, wants compliance and feels responsible for the other person's success or failure.

Contrast these orientations with the identity of mediator. In this chapter we have described a mediator's mission as helping individuals to develop their own resources for problem solving. A mediator is a co-learner, engaging another person with the intent of transforming his capacities to become more self-directed: self-managing, self-monitoring, and self-modifying.

Being aware of these orientations helps us to recognize these recurring patterns of our own behavior as we play out our many life roles. The "default position" as a mediator, however, may be manifest in many situations across many relationships, such as between parent and child, husband and wife, or administrator and teacher. The mediator's overriding intention is always present: as a result of this interaction, the other person will become more capable of solving the problem for herself and will have the capacity to solve future problems with greater efficacy. Thus, mediators evaluate their own performance based on the degree to which they have helped others to become more autonomous and interdependent.

The Neuropsychological Origins of Identity

Neuroscientist Antonio Damasio helps us to understand the neuropsychological origins of identity. He explains that for some aspects of consciousness there is an anatomy, or an involvement, of specific brain regions and systems. He notes that whereas emotion and consciousness are not separable in humans, consciousness "can be separated into simple and complex kinds. The neurological evidence makes the separation transparent."⁹ Damasio calls the simplest kind of consciousness core consciousness. "It provides the person with a sense of self about one moment—now and about one place—here." There is also an *extended consciousness* that provides the person with a sense of self and places "me" into a historical frame, richly aware of the lived past, the anticipated future, and the world beside oneself.

Extended consciousness reaches its highest peak in humans. It is a complex biological phenomenon and depends on conventional

Identity and Sense of Self

Wheatley and Kellner-Rogers observe, "Every living thing acts to develop and preserve itself. Identity is the filter that every organism or system uses to make sense of the world. New information, new relationships, changing environments—all are interpreted through a sense of self. This tendency toward self-creation is so strong that it creates a seeming paradox. An organism will change to maintain its identity."⁸

memory, working memory, reasoning, and language. The sense of self, which emerges in core consciousness, is a transient entity, ceaselessly re-created for each and every object with which the brain interacts. Our traditional sense of self, however, corresponds to a nontransient collection of unique facts and ways of being that characterize a person. Damasio calls this the autobiographical self. The thoughts, feelings, inferences, and interpretations of the experiences available to the autobiographical self constitute one's identity. Identity is the story we tell ourselves of who we are.

The Social Origins of Identity

Identity, then, is constructed from the meaning we make of our interactions with others and with the environment. Identity emerges from a web of relationships constructed within a community. It is not only how I see myself, but also the meanings I make from how others see me as a result of my interactions over time. There is no identity in isolation from each other.

One's identity is not fixed but, rather, is in a constant and imperceptibly gradual transformation. It is the temporary result of a struggle for authenticity, striving to align ourselves more congruently from within (our ego ideals, our sense of self) and with reciprocal relationships (between the external world and internal self). It is a struggle for authenticity to our autobiographical self as we understand and envision it.

A new identity may not be something that we build but rather something that we dissolve. As Michelangelo carved his sculptures by chipping away the excess stone to reveal the figure that was al-

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ready inside the marble, our identity may go through a gradual "morphing" process to form new dimensions of itself. Through Cognitive Coaching, we have seen these transformations countless times as people "discover" powers they have through the processes of mediation.

Identity organizes our beliefs and values; these provide structures for capabilities that drive the selection, shaping, and use of knowledge and skill.¹⁰ Identity drives perception, choice, and behavior; thus, reciprocally, actions to some degree reinforce identity. Our identity evolves from preexisting patterns through meanings we make from a history of reciprocal interactions. In a similar manner, our words and labels allow us to see new realities, and our seeing new realities affects our words. Our identity defines our reality, and our subjective reality helps to shape our identity.

Cognitive Coaching requires refining and habituating new maps and patterns of thinking and increasing sensitivity to how those patterns affect our relationships with others. Students of Cognitive Coaching may experience dissolution of the old thoughts that held their identity as they develop new identities that constitute new thoughts.

CONCLUSION

In asking, "Who am I?", it is useful to reflect on the following questions:¹¹

- How do I see myself?
- How do I want to see myself?
- How do I think others see me?
- How do I see others?
- How do I want others to see me?

As a format for identity building, these questions allow mediators to assess how they see themselves as individuals as well as in relationship to others. This exploration can set the groundwork for personal goals that the coach can develop for himself. They also

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provide a vehicle for coaches to learn more about their client's identity, her affiliations, and the references to which she makes connections and which she thus values.

For some people, the role of mediator may fit immediately into their desired identity, and the behaviors may follow "naturally." For others it will take a psychological shift. Transforming one's identity implies foraging in the unknown—opening oneself to the psychological risks of a new venture, the physically unknown demands on time and energy, and the intellectually unknown requirements for new skills and knowledge. Adopting an identity as a mediator requires a shift away from obsolete beliefs about learning, teaching, achievement, and talent.

The concepts in this chapter invite a shift from the present paradigms. For many educators, a dominant sense of satisfaction has come from their expertise as problem solvers. The shift to a mediational identity creates a feeling of being rewarded by facilitating others to solve their own problems. The shift is from teaching others to helping others learn from situations; from holding power to empowering others; from telling to inquiring; and from finding strength in holding on to finding strength in letting go. Changing one's identity requires patience, stamina, and courage.

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The Mediator's Toolbox

A skillful coach uses certain well-crafted verbal and nonverbal tools to facilitate others' cognitive growth. All are used without judgment; all are intended to sustain a colleague's access to the highest possible neocortical intellectual functions and body-mind intelligence. These tools can be catalogued into four groups: paralanguage, response behaviors, structuring, and mediative questioning.

Paralanguage refers to vocal qualities, body gestures, and other verbal and nonverbal behaviors that exist alongside the words we speak. (The prefix para means "alongside.") When confronted with conflicting verbal and nonverbal messages, humans inevitably choose the meaning behind the nonverbal behavior. We are just beginning to increase our appreciation of the body in thinking. Distinguished neurologist Antonio Damasio conjectures that mental activity, from its simplest aspects to its most sublime, requires both brain and body.¹

Response behaviors refers to verbal responses to another person's communications. Five types of verbal responses are helpful in mediating thinking:

- Silence, through wait time and listening
- Acknowledging, both nonverbally and verbally
- Paraphrasing, such as summarizing, organizing, shifting levels, and empathizing
- Clarifying, by probing for meanings and specificity
- Providing data and resources, thus facilitating the acquisition of information through primary and secondary sources

Structuring establishes the parameters of time, space, and purposes.

Mediative questioning helps coaches to construct and pose questions intended to engage thinking.

This chapter examines each of these coaching tools and describes their positive effects on intellectual growth.

PARALANGUAGE

On the average, adults find more meaning in nonverbal cues than in verbal ones. A recent summary of communication literature supports the theory that nearly two-thirds of meaning in any social situation is derived from nonverbal cues.² In addition to posture, gesture, and use of space, the intonation, rhythms, pacing, and volume of a person's voice all contribute important information about the communication.

Vocal cues affect attention. In a classic book, top nonverbal-behavior scholars Burgoon, Buller, and Goodall report studies that demonstrate that "Vocal variety, which includes variation in pitch, tempo, intensity and tonal quality, has been shown to result in increased comprehension."³ In classroom work, Michael Grinder, observing in more than 5,000 classrooms, found that teachers tend

to use one of two voices that elicit student attention in order to achieve comprehension.⁴ One is a credible voice, with which the teacher gains attention and gives direction. This voice is characterized by a limited range of modulation and a tendency to go down in intonation at the end of a sentence. (Imagine a newscaster reporting news.) The second voice, and the one used in coaching, is an approachable voice. This has a wider range of modulation and a tendency, at times, to rise in inflection at the end of a sentence. When delivered in an approachable voice, questions like "Can you say more?" or "What are your goals?" signal safety and inquiry. The same questions offered in the credible voice feel like interrogation and lead to shutdowns in thinking.

Recently, the neuropsychologist Giacomo Rizzolatti found neurons in monkeys that fire both when the monkey carries out certain specific hand motions and when it views those specific motions being carried out by someone else. The existence of "mirror neurons" indicates that we are built to respond to what others in our environment do. We believe that these "mirror neurons" will also be found for other gestures, including facial movements.⁵

Humans gesture when they talk. The observant coach will notice that colleagues place people, events, time periods, and concepts in space. "On the one hand . . . and then on the other hand" is a verbal equivalent of this physical talk. Understanding is communicated and rapport is enhanced when the coach points to the space assigned to a concept when verbally responding. A verbal paraphrase is a reflection of what the colleague is thinking and feeling. Repeating a colleague's gesture adds a visual component to the reflection.

Even laughter, as a paralanguage, is valuable in coaching. Researchers at Stanford University and the Loma Linda Medical School found an increase in white blood cell activity while subjects listened to a comedian. This change in blood chemistry may boost the production of the neurotransmitters required for alertness and memory.⁶

During the early 1970s, Richard Bandler and John Grinder conducted a series of investigations to learn why some therapists were almost magically effective, in contrast to others who simply did a

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good job. They initially studied Fritz Perls, the founder of Gestalt therapy; Virginia Satir, noted for her results in family therapy; and Milton Erickson, generally acknowledged to be the world's leading practitioner of medical hypnosis.⁷

The researchers discovered that Perls, Satir, and Erickson constantly mirrored their clients. For example, if the client had his legs crossed, the therapist crossed his legs. If the client leaned forward on her elbows, so did the therapist. When the client spoke rapidly, the therapist did, too.

Whether they were conscious of it or not, Perls, Satir, and Erickson were modeling the theory of entrainment, which was formulated in 1665 after a Dutch scientist noted that two pendulum clocks mounted side by side on a wall would swing together in a precise rhythm. It was discovered that the clocks were synchronized by a slight impulse through the wall. Figure 4-1 shows other manifestations of this kind of rapport.

When two people "oscillate" at nearly the same rates, we observe entrainment. Human beings seek this kind of synchronization. George Leonard reports that human beings pulse at frequencies of oscillation, as do the simplest single-celled organisms at the atomic, molecular, subcellular, and cellular levels.⁸

At the Boston University School of Medicine, William Condon studied films of many sets of two people talking. Not only were the bodies of the speakers matched, but another "very startling phenomenon" was observed: entrainment existed between the speaker's words and the listener's movements. As one person would talk, the second person would make tiny corresponding movements. As Condon expressed it:

Listeners were observed to move in precise shared synchrony with the speaker's speech. This appears to be a form of entrainment since there is no discernible lag even at 1/48 second. It also appears to be a universal characteristic of human communication, and perhaps characterizes much of animal behavior in general. Thus, communication is like a dance, with everyone engaged in intricate and shared movements across many subtle dimensions, yet all strangely oblivious that they are doing so.⁹

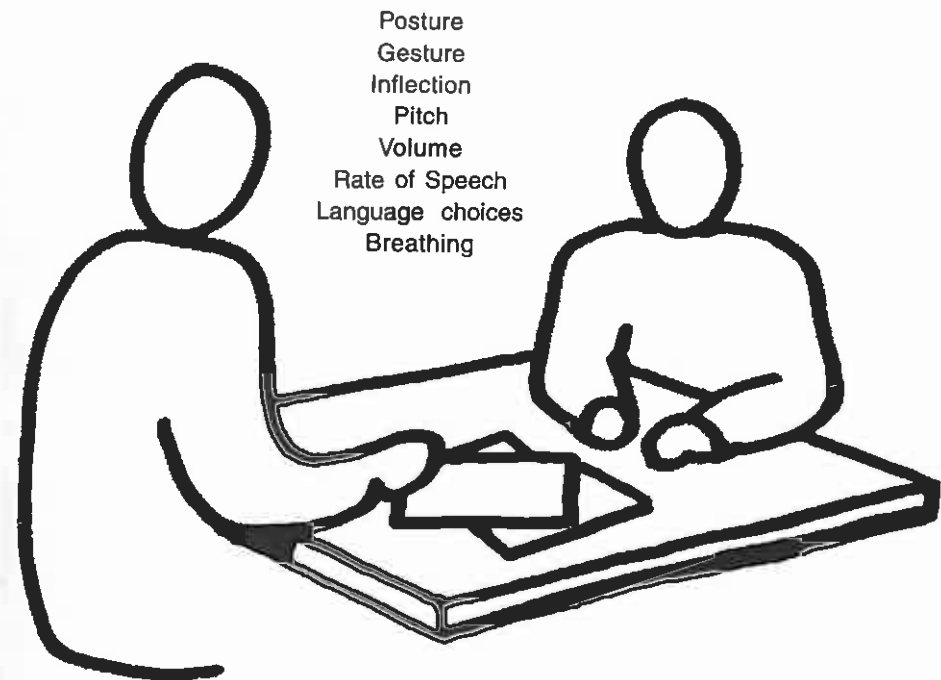


Figure 4-1.
Rapport

When entrainment (matching) of several of these processing and communication systems is present, people can be said to be in rapport.

An example of entrainment in a school setting might be the following: Lee says, "Fran, I've got some teachers on my staff doing things I am really excited about. I'm trying to figure out how I can get them to share some of their good ideas with other faculty." While Lee is speaking, she gestures broadly with her hands and arms. Then she shrugs her shoulders as she notes her predicament. Now Fran says, "Lee, tell me a little bit about what's so special about these teachers." As Fran speaks, she mirrors Lee's gestures and body movements.

Because Lee's nonverbal behaviors are congruent with her feelings and thoughts, each particular movement and gesture conveys specific meanings. When Fran borrows these same nonverbal cues, Lee subconsciously senses that Fran knows exactly what she's talking about. Figure 4-2 shows another example of matching body positions and gestures as a manifestation of rapport.



Photo by Bruce Wellman, Mira Via, Guilford, CT

Figure 4-2.
Matching Posture and Gesture

RESPONSE BEHAVIORS

The effective Cognitive Coach draws on several response behaviors, depending on the colleague and the setting. These behaviors are silence, acknowledging, paraphrasing, clarifying, and providing data and resources.

Silence

Some coaches may wait only one or two seconds after having asked a question before they ask another question or give an answer to the question themselves. It is easy to feel that unless someone is talking, no one is learning. In actuality, however, silence is an indicator of a productive conference. If the coach waits after asking a question, or after the partner gives an answer, the silence (1) communicates respect for the other's reflection and processing time, and (2) results in a positive effect on higher level cognitive processing.

If the coach waits only a short time—one or two seconds—then a brief, one-word type of response will typically result. On the other hand, if the coach waits for a longer period, teachers tend to respond in whole sentences and complete thoughts. There is a perceptible increase in the creativity of the response as shown by greater use of descriptive and modifying words and an increase in speculative thinking.¹⁰ There is also an increased feeling of being valued and respected by the coach.

Coaches can communicate expectation through the use of silence. When the coach asks a question and then waits for an answer, it demonstrates that the coach not only expects an answer but also has faith in the other person's ability to perform the complex cognitive task, given enough time. If the coach asks a question, waits only a short time, and then gives the answer or gives hints, it subconsciously communicates that the colleague is inadequate and can't really reason through to an appropriate answer.¹¹

When the coach waits after the other person gives an answer, it causes the continuation of thinking about the task or question. Furthermore, when a coach waits after the partner asks a question or gives an answer, it models the same thoughtfulness, reflectiveness, and restraint of impulsivity that are desirable behaviors for others to use.¹²

Acknowledging

Acknowledging without making judgments is a response that simply receives and recognizes what the speaker says without making any value judgments. It communicates that the other person's

ideas have been heard. The following are examples of this type of response:

- Verbal: "Um-hmm," "That's one possibility," "Could be," or "I understand."
- Nonverbal: Nodding the head or recording the speaker's verbatim statement on a note pad.

Paraphrasing

Paraphrasing is one of the most valuable and least used tools in human interaction. A well-crafted paraphrase communicates, "I am trying to understand you and therefore I value what you have to say." A paraphrase also establishes a relationship between people and ideas. Paraphrasing aligns the parties and creates a safe environment for thinking.

Mediational paraphrases reflect the speaker's content and emotions about the content. They frame the logical level for holding the content. Questions by themselves, no matter how artfully constructed, put a degree of psychological distance between the asker and the person being asked. Questions preceded by paraphrases gain permission to probe for details and elaboration. Without the paraphrase, probing and questioning may be perceived as interrogation.

To structure an effective paraphrase, begin by carefully listening and observing to calibrate the content and emotions of the speaker. Signal your intention to paraphrase by modulating intonation and using of an approachable voice. Don't use the pronoun I. (For example, "What I think I hear you saying . . .") The pronoun I signals that the speaker's thoughts no longer matter and that the paraphraser is now going to insert his own ideas into the conversation.

Open with a reflective stem. This language structure puts the focus and emphasis on the speaker's ideas, not on the paraphraser's interpretation of those ideas. For example, these stems signal that a paraphrase is coming:

- You're suggesting . . .
- You're proposing . . .
- So you're wondering about . . .
- Your hunch is that . . .

Choose a logical level with which to respond. There are at least three broad categories of logical levels:

1. *Acknowledge and clarify* content and emotion. If the paraphrase is not completely accurate, the speaker will offer corrections. For example, "So, you're concerned about the district-adopted standards and how to influence them."
2. *Summarize and organize* by offering themes and categories that relate several extensive topics. For example, "So you are concerned about several issues here. One is the effects of testing on students' higher level thinking. Another is making inferences about school effectiveness based upon test scores alone. And yet another is how they influence teachers' instructional practices."
3. *Shift focus* to a higher or lower logical level. Paraphrases move to a higher logical level when they name concepts, goals, values, and assumptions: "So, a major goal here is to define what constitutes effective learning and to design authentic ways to gather indicators of achievement." Paraphrases move to a lower logical level when abstractions and concepts require operational definitions: "So authentic assessments might include portfolios, performances, and exhibitions."

Clarifying

We are prepared to see, and we see easily, things for which our language and culture hand us ready-made labels. When those labels are lacking, even though the phenomena may be all around us, we may quite easily fail to see them at all. The perceptual attractors that we each possess (some coming from without, some coming from within, some on the scale of mere words, some on a much grander scale) are the filters

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through which we scan and sort reality, and thereby they determine what we perceive on high and low levels.

—D. Hofstadter¹³

The brain and central nervous system filters an enormous amount of sensory input. A million bits of information per minute come pouring into the brain—and we certainly can't attend to it all. Instead we generalize, fitting information into already stored patterns and categories. Sometimes we delete, or literally stop data from coming in. (For example, we see bugs and dirt on a windshield but look through them to focus on the road and other cars.) At other times we distort, shaping information to fit our preconceived structures and beliefs. There is a story about a man who thought he was a corpse. After six months, his psychiatrist asked him if corpses could bleed. The patient said, "Of course not!" The doctor pricked the patient's finger and squeezed out some blood. The patient stared at it and exclaimed, "What do you know? Corpses do bleed!"

Because our brains easily filter and distort information, it's important to understand some of the cognitive reasons that probing and clarifying are essential. The skillful coach looks for the speech patterns described below.

Vague nouns or pronouns. When the teacher talks about "the textbooks," she has deleted information about which textbooks she's referring to. The coach can ask, "Which textbooks, specifically?" Clarifying vague nouns and pronouns supplies missing data and provides more precise information. When the teacher says "the girls in the class," the coach can get a better understanding by asking, "Which girls?"

Vague action words. These refer to unspecified verbs, such as *think* and *understand*, and they also signal deleted information. When the coach hears, "I want students to understand," he can ask, "Understand how, specifically?" to clarify the performance. "Which students?" will clarify the audience. "What will you see them doing when they are understanding?" tells the coach exactly what the teacher is looking for.

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Comparisons. Distortions or generalities will sometimes be masked by comparisons. Often, the teacher will not elaborate to whom or to what she is comparing students. For example, if the teacher says, "The class is much brighter," the coach can probe, "Brighter than what?" Or if the teacher says, "Rebecca's getting along much better," the coach can ask, "Better than what?"

Rule words. Phrases like "I can't," "We shouldn't," "It happens all the time," or "Nobody does that" should alert the coach that the teacher is limiting his thinking and possibly working with distorted perceptions. Skillful coaches challenge this mindset. When a teacher says, "I can't," the coach can respond, "What's stopping you?" When the teacher says, "We shouldn't," one response is "What would happen if we did? Who made up that rule?"

Universal quantifiers. Terms such as *everybody*, *all the time*, *nobody*, *never*, and *always* also limit thinking. Statements employing these terms can be challenged with intonation. If the teacher says, "Nobody around here does that," the coach may simply respond, "Nobody?" Most people will recognize that they have overgeneralized. Or the coach can ask for exception: "Nobody around here does that? Can you think of someone who does?" This, too, leads the teacher to see that she has generalized. If the relationship permits it, the coach can use a gentle exaggeration: "Nobody ever does that? Never in the history of this school has anyone done that?"

Clarifying and probing are effective skills to call on when the speaker uses a vague concept or a vocabulary that the listener doesn't understand. The purpose of clarifying is to invite the speaker to illuminate, elaborate, and become more precise in his meaning. Clarifying helps the listener to better understand the speaker. Some examples of clarifying and probing include the following:

- Help me to understand what you mean by . . .
- What will students be doing if they are comprehending the story?
- Which students, specifically?
- When you say this class is better, better than what?

- When you say “the administrators,” which administrators do you mean?
- What do you mean by “appreciate”?

Providing Data and Resources

While data may be provided during collaborating or consulting, one of the main objectives of Cognitive Coaching is to mediate the other person’s capacities for processing information by comparing, inferring, or deducing causal relationships. For coaching to be data driven, therefore, data must be richly and readily available for the colleague to process. Providing data nonjudgmentally means that the coach makes it possible for the colleague to acquire the data she needs to deduce these relationships. There are several ways to facilitate this process.

During a planning conference or a coaching cycle, the coach invites the teacher to identify what information is desired, when it should be collected, and in what format the data will be recorded. Examples might include the following:

- Tell me what you want me to record about student responses that will be of help to your understanding of their higher level thinking.
- So, my job is to keep a tally on this seating chart of which students are on task and which students are off task.
- When in the lesson do you want me to record your directions? Just at the beginning when you outline their assignment, or throughout the entire lesson whenever you give a direction?

During the lesson, the coach observes and records information, data, and facts that the teacher requested during the planning conference. For example, a coach can record data with videotapes, audiotapes, classroom maps, time-on-task charts, and verbatim scripts of teachers’ or students’ statements.

During the reflecting conference, the coach provides the teacher with the data nonjudgmentally. Examples include the following:

- You asked three questions within the first five minutes of your lesson.
- Of the six students you wanted me to observe, Eric spoke four times, Sarah spoke two times, Shaun spoke once, and the remaining three did not speak at all.
- Here is a map of your classroom showing where you moved. Each circle indicates where you stopped and interacted with students. During the group work, you stopped and interacted with group 1 five times, group 2 three times, and group 3 two times.

Because the ultimate goal of the coach is to mediate another’s capacity for self-coaching and self-modification, the coach may also mediate the colleague’s gathering of data. For example, during a planning conversation the coach might say the following:

- What information do you have about these students that will guide your lesson design?
- What indicators will you be aware of to let you know you are achieving the meeting’s goals?
- How will you monitor your own pacing to accomplish your agenda within the time constraints?

During a reflecting conversation, the coach mediates the acquisition of data by drawing forth and focusing on the information gathered by the colleague during the event:

- How much time did you spend explaining the task?
- What indicators were you aware of that let you know the group understood its task?
- What data were you collecting during the meeting that informed your decision to change the agenda?

STRUCTURING

Structuring is defined as the many ways in which a coach clearly communicates expectations about purposes and the use of such resources as time, space, and materials. Structuring should be clear, conscious,

and deliberate. It should be based on a common understanding of the purposes for the coaching, the roles the coach should play, the time allotments, the most desirable location for the conversation, and the placement of the coach during the observation.

Examples of verbal structuring behavior include the following:

- Since you want me to observe the group members' participation, I'll need to sit in a place in the room where I can see them all during the meeting. Where would that be?
- It will take us about 15 minutes for a planning conference. Let's set a time that would be convenient for both of us.
- Here is a copy of the map of the coaching cycle. During the planning conference, I'll be asking you to share with me your goals and objectives, which instructional behaviors you'll use to achieve those goals, and by what indicators you'll know your students achieved your purposes. I'll also be asking you to give me directions for what to look for during the lesson that will be of assistance to you.

ATTRIBUTES OF MEDIATIVE QUESTIONING

It's not the answers that enlighten us, but the questions.

—Descouvertes

Mediative questioning is intentionally designed to engage and transform the other person's thinking and perspective. These kinds of questions meet at least three criteria:

- They are invitational in intonation and form.
- They engage specific complex cognitive operations.
- They address content that is either external or internal to the other person.

Invitational

An approachable voice is used with invitational questions. There is a lilt and a melody in the questioner's voice rather than a flat, even tenor. Plurals are used to invite multiple rather than singular concepts:

- What are your *goals* for this project?
- What *ideas* do you have?
- What *outcomes* do you seek?
- What *alternatives* are you considering?

Words also are selected to express tentativeness:

- What conclusions *might* you draw?
- What *may* indicate his acceptance?
- What *hunches* do you have to explain this situation?

Invitational stems (dependent clauses and prepositional phrases) are used to enable the behavior to be performed:

- As you think about . . .
- As you consider . . .
- As you reflect on . . .
- Given what you know about the children's developmental levels . . .

Both invitational stems and the paraphrase that precedes the question often employ positive presuppositions. Positive presuppositions assume capability and empowerment. A presupposition is something that a native speaker of a language knows is part of the meaning, even if it is not overtly present in the linguistic structure of the communication. We sometimes receive these deeper meanings unconsciously because they are not communicated by the surface structure of the words and syntax. Subtle- and not-so-subtle-presuppositions embedded in our statements carry meanings that can either hurt or support others.

For example, the statement, "Even Bill could pass that class!" conveys the ideas that (1) Bill is not a great student, and (2) the class is not challenging. Neither of these pieces of information is present in the surface structure of the sentence. Still, the sentence communicates, "Even Bill [who is not a great student] could pass that class [so therefore the class can't be that challenging]!". The two unstated pieces of information are inferred by the listener as presuppositions, or assumptions underlying the sentence.¹⁴

By paying attention to the presuppositions we use and choosing our words with care, we more positively influence the thinking and feelings of others with whom we communicate. For example, consider the positive presuppositions in the following sentences:

- "What are some of the benefits you will derive from this activity?" (Presuppositions: You can anticipate outcomes; you will derive benefits; your thoughts are more important than my own ideas.)
- "As you anticipate your project, what are some indicators that you are progressing and succeeding?" (Presuppositions: You are someone who plans and anticipates; you will progress and succeed; your indicators are more important than anything I might suggest; you are alert to cues and are self-monitoring.)
- "Given your experience and knowledge of learning styles, what are some of your ideas about this?" (Presuppositions: You are experienced, your experience has value because you have reflected on and grown from it, you know about learning styles, you can generate ideas; your ideas have great value.) The phrase "your experience and knowledge of learning styles" tends to pull into short-term memory content with which to process the question.

Specific Cognitive Operations

Questions invite different levels of complexity of thinking. Embedded in questions are certain syntactical cues that signal and invite behavior or thinking processes. Skillful coaches deliberately use these linguistic tools to engage and challenge complex thinking. Table 4-1 illustrates this process. In the first column, Input, are the

TABLE 4-1.
COGNITIVE OPERATIONS

Input	Process	Output
Recall	Compare/Contrast	Predict
Define	Infer	Evaluate
Describe	Analyze	Speculate
Identify	Sequence	Imagine
Name	Synthesize	Envision
List	Summarize	Hypothesize

data-gathering cognitive operations. In the second column, Process, are the cognitive operations by which meaning is made of the data. The third column, Output, invites speculation, elaboration, and application of concepts in new and hypothetical situations.

Table 4-2 shows some examples of questions intended to engage certain cognitive operations.

External or Internal Content

External content is what is going on in the environment around, and thus outside, the person. Internal content is what is going on inside the other person's mind and heart: satisfaction, puzzlement, frustration, thinking processes (metacognition), values, intentions, or decisions. Questions that most effectively mediate thinking link internal content with external content.

APPLYING QUESTIONING CRITERIA TO MENTAL MAPS

To learn new habits is everything, for it is to reach the substance of life. Life is but a tissue of habits.

—Henri Fredric Amiel

TABLE 4-2.

COGNITIVE OPERATION QUESTIONS

Cognitive Operation	Question
Identify	Who, specifically . . . ?
Values/Beliefs	What do you believe about . . . ?
Relevance/Justification	How is this important to . . . ?
Intentionality	For what purposes . . . ? Toward what ends . . . ?
Metacognition	What were you thinking when . . . ?
Behavior	What will you be doing when . . . ?
Temporality:	
Simultaneity	While . . . ?
Synchronicity	During . . . ?
Duration	How long . . . ? For what period of time . . . ?
Rhythm	How often? How frequently?
Sequence	What came before? What comes after? . What comes first, second, third?
Flexibility:	
Perspective	How would you feel if . . . ?
Alternatives	How else might you . . . ?
Evidence	How will you know if . . . ? What evidence supports . . . ?
Predictions	If you were to . . . , what do you predict would happen?
Causality	What did you do to cause . . . ? What produced . . . ?
Data Use	Of what use will you make of these data? What would that information tell you?
Applications	What will you take from this? How will you apply this elsewhere?
Evaluative Criteria	What criteria will you use to . . . ? By what standards will you judge . . . ?

Drawing on the mental maps of the planning and reflecting conversations and on the characteristics of effective questions, Table 4-3 provides some examples of questions that a coach might ask with the intention of eliciting and evoking each of the goals in the coaching cycle. (Additional examples are found in Appendix D.)

TABLE 4-3.

QUESTIONS TO ELICIT GOALS OF THE PLANNING CONVERSATION

Intention	Sample Questions
PLANNING:	
1. Clarify goals.	What are some of the goals you have in mind for this lesson?
2. Determine success indicators.	As you envision the lesson progressing, what will you be alert to as indicators that you are achieving your goals?
3. Anticipate approaches, strategies, decisions, and how to monitor them.	Given your previous experiences with these students and this content, what strategies will you use to help them. How will you know they are learning?
4. Identify personal learning focus, data to be collected, and a plan for collecting evidence.	As you experiment with your instructional strategies, skills are you interested in perfecting? What will you pay attention to in your own and your students' behavior to let you know that your strategies are working?
REFLECTING:	
Analyzing	
Summarize Impressions.	As you reflect on your lesson, how do you feel it went?
Recall supporting information.	What did you notice in your student's behavior that indicated success?
Compare, analyze, infer, and determine cause-and-effect relationships.	What are some of your hypotheses about the factors that contributed to the success of the lesson?
Applying	
Construct new learnings and applications.	What new insights will you carry forth in your work? How might you apply them?
Reflect on the coaching process and explore refinements.	As you reflect on this coaching session, what did it do for you? As you consider my role, what suggestions do you have to increase my effectiveness as a coach?

CONCLUSION

Mediators are clear about their purposes and intentionally employ certain verbal and nonverbal tools with others to help transform and empower their cognitive functioning. In this chapter we have presented the verbal and nonverbal tools that serve a mediator in achieving the goals of helping others to become increas-

ingly more self-directed. Although these skills are presented in the context of Cognitive Coaching, they are useful in any dialogue between two human beings desiring to grow together, to plan, to reflect, to solve problems together, and to create deeper meaning and understanding.

For some, the behaviors described in this chapter come naturally. For others, it will take time and practice to become proficient and comfortable using these tools. We recommend that coaches isolate certain skills and consciously practice them rather than attempt to learn them all at once.

If we choose to intentionally employ, over time, the Cognitive Coaching values described in chapter 1, the mental maps described in chapter 2, the capabilities described in chapter 3, and the tools described in chapter 4, we can become increasingly skillful in facilitating the self-actualization of others. As our colleagues assume greater responsibility for coaching themselves, others will come to identify us as mediators of self-directed learning.

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